

Title (en)  
Layered coating for erosion protection

Title (de)  
Lagenbeschichtung zum Erosionsschutz

Title (fr)  
Couche stratifiée pour la protection contre l'érosion

Publication  
**EP 2256228 A3 20110105 (EN)**

Application  
**EP 10158900 A 20100331**

Priority  
US 47287109 A 20090527

Abstract (en)  
[origin: EP2256228A2] A coating for protecting a surface (11) against erosion when contacted by particles having a range of particle sizes or by high velocity fluid impingement includes a first coating (17) on the surface forming a high bulk or composite hardness coating; and a hard ceramic coating (19) on the first coating having a hardness higher than the hardness of the first coating and the erosion particles.

IPC 8 full level  
**C23C 4/12** (2006.01); **C23C 28/00** (2006.01); **C23C 28/04** (2006.01)

CPC (source: EP US)  
**C23C 4/12** (2013.01 - EP US); **C23C 24/04** (2013.01 - EP US); **C23C 28/324** (2013.01 - EP US); **C23C 28/34** (2013.01 - EP US); **C23C 28/341** (2013.01 - EP US); **C23C 28/343** (2013.01 - EP US); **Y10T 428/24983** (2015.01 - EP US)

Citation (search report)

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- [X] EP 0526670 A1 19930210 - UNION CARBIDE COATINGS SERVICE [US]
- [X] DE 102004032342 A1 20060202 - FEDERAL MOGUL BURSCHIED GMBH [DE]
- [X] UTSUMI ET AL: "Effect of a hard supra-thick interlayer on adhesion of DLC film prepared with PBIID process", NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH, SECTION - B: BEAM INTERACTIONS WITH MATERIALS AND ATOMS, vol. 257, no. 1-2, 1 April 2007 (2007-04-01), ELSEVIER, AMSTERDAM, NL, pages 706 - 709, XP022014801, ISSN: 0168-583X, DOI: 10.1016/J.NIMB.2007.01.127
- [A] SHANOV V ET AL: "CVD diamond coating for erosion protection at elevated temperatures", JOURNAL OF MATERIALS ENGINEERING AND PERFORMANCE, vol. 11, no. 2, April 2002 (2002-04-01), ASM INTERNATIONAL, US, pages 220 - 225, XP002607210, DOI: 10.1361/105994902770344303

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Designated contracting state (EPC)  
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK SM TR

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